

# Get Checked Online: Improving Digital Public Health?

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We are standing on the traditional and unceded territories of the Musqueam, Squamish and Tsleil-Waututh nations

# **Conflict of interest**

I am the medical lead for the Online Sexual Health Services program (and striving to be as objective as I can)

# Learning objectives

- To think about digital transformation and the role of public health
- To learn about evaluation of digital health programs
- To review what we know to date about the public health impact of GetCheckedOnline, and where we go from here



## Corporate report Digital-first public health: Public Health England's digital strategy

Published 2 February 2017





- A way of doing things, putting users and people in the middle of what we do
- Generating and using new kinds of data properly
- An open, faster culture
- Learning by doing





Digital: Applying the culture, practices, processes & technologies of the Internet-era to respond to people's raised expectations.



12:00 AM - 10 May 2016

# Digital... Technology



- Social
- Mobile
- Analytics
- Cloud
- Automation and sensors
- 3D printing
- Robotics
- Wearables
- Machine learning
- Augmented reality
- Artificial intelligence

# **Digital... Public Health**



John Thow

A re-imagining of public health using these new ways of working, blending established public health wisdom with new digital concepts and tools

It recognizes the rapidly changing context of changing technology, exploring new models of public health using technology, and introducing flexibility and resilience that will allow us to adapt our public health practice, and improve outcomes





#### HARM REDUCTION SITE FIND Δ



WHERE ARE Y	′OU?
Enter an a	ddress, city, or postal code
WHAT SUPPL	IES ARE YOU LOOKING FOR?
Naloxone	



🔁 Do Bugs Need Drugs? Retweeted



**Mariane Covington** @MarianeCovNHS

During #antibioticawarenessweek 2016 our Pharmacists signed up 65 people to be an #antibioticguardian Find out more AntibioticGuardian.com

#### Want a Reminder?



#### **Reportable Disease Dashboard**

This new interactive tool provides summary statistics on a variety of reportable diseases and conditions in British Columbia.



1 Right Answer = 1 Vaccine Earned!

#### When most people are vaccinated, we call it:

Question 1 of 5

- Agoraphobia
- **Herd Immunity**
- Crowdsourcing

## Learning Hub

Q FIND A COURSE

**HIV Point of Care** 





# A re-imagining of evaluation & research



Different data

**Different tools** 

**Different challenges** 

# What is needed?



- More than feasibility: scale up
- Understand impacts at multiple levels
- Consider differences in implementation contexts
- Use multiple methods
- Integrated evaluation and development cycles





- A service that provides access to testing for sexually transmitted and blood-borne infections via the internet
- Is a "virtual clinic" of the BCCDC in partnership with the BC
  Public Health Laboratory and regional health authorities
- Integrated with current STI clinical and public health practices



Gilbert M, Haag D, Hottes TS, Bondyra M, Elliot E, Chabot C et al. Get Checked... Where? The Development of a Comprehensive, Integrated Internet-Based Testing Program for Sexually Transmitted and Blood-Borne Infections in British Columbia, Canada. JMIR Research Protocols 2016;5(3):e186



#### What can I test for?

Chlamydia Gonorrhea HIV **Syphilis** Hepatitis C

#### What about other STIs?

GetCheckedOnline does not test for all STIs. If you want to get tested for other kinds of STIs, you will need to visit a clinic or see your doctor.

Learn more

#### What's GetCheckedOnline?

GetCheckedOnline is a new and easy way to test for sexually transmitted infections (STI) in British Columbia, Canada. In a few steps, you can print a lab form, then go to a participating LifeLabs site to give your samples and get your results online or over the phone.

#### Who can use it?

Learn more

GetCheckedOnline is operated by the BC Centre for Disease Control. It is available in Vancouver and select communities on Vancouver Island and in the Interior. You will need a valid promotional code to create your account; visit Getting a Code to find out how and where to get a code. We hope to expand GetCheckedOnline to other areas in BC in the future.

Create an Account			
croate any teocount			
WITH VALID PROMO CODE			
Existing Users			
Password			
Sign-In Forgot your Password?			
Find a Lab			
Click Here			

GetCheckedOnline is available at select LifeLabs locations in British Columbia

#### What's New?

#### Throat and rectal swabs are now available!



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Good news! GetCheckedOnline now offers throat and rectal swabs for chlamydia and gonorrhea testing. Please be aware that if

swabs are recommended for you but you do not bring your swabs back to LifeLabs, you will not be able to see your results online.

Have **Questions?** 

If you can't find answers here, you can ask your questions online at SmartSexResource. A sexual health nurse is available to answer your questions through the website or private chat.

Learn More

#### Having 11 Safer Sex

Using condoms and other kinds of protection is a very effective way to prevent STIs. Spice up your safer sex life. Use protection and learn how to talk about safer sex with partners

Learn More...

## getcheckedonline.com

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Learn More ....

Other Resources

Need more information or someone to talk to? There are lots of online resources and local services that deal with sexual health and STIs.

Privacy Your privacy is important to

Your

us. Any personal

provincial privacy

legislation.

Learn More..

information collected by this

online service is protected

by our privacy policy and

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# **Program objectives**

- Improve sexual health by increasing uptake & frequency of STI/BBI testing → increased timeliness of diagnosis
- Reach populations at greater risk of infection & facing barriers to accessing testing
  - Youth; gay, bisexual and other men who have sex with men (GBMSM); people in rural areas
- Increase STI clinic capacity & improved use of clinician resources

Pilot phase Launched Sept 2014

 Six Lifelabs location in Vancouver

#### Promotion to:

- STI clinic clients
- Gay, bisexual and other men who have sex with men
- Deferred testers

#### **Expansion phase: February 2016**

- Added five communities in Interior and Island Health
- Promotion as per regional priorities
- Addition of rectal & throat swabs

## Test episodes to date



#### Test episodes to date







# Of the 121 diagnoses by Jan 2017:

- 103 unique individuals
- •35% detected through rectal or throat swabs



# POSSIBLE I

## **Back to the objectives**

- Increase uptake & frequency of STI/HIV testing
- Reach populations at greater risk of infection & facing barriers to accessing testing
- Increase STI clinic capacity



Gilbert M, Salway T, Haag D, Fairley CK, Wong J, Grennan T et al. Use of GetCheckedOnline, a comprehensive web-based testing service for sexually transmitted and blood-borne infections. JMIR 2017;19(3).

# Comparing client characteristics (Feb-Dec 2016)





# Visitor experience survey

Thanks to: Travis Salway, Kim Thomson

- **Objectives:** To determine whether GCO and clinic clients differ:
  - by socio-demographics or other factors hypothesized to influence adoption (e.g., tech savvy, barriers to testing)
  - In post-test HIV knowledge
  - In satisfaction and trust of the service

# Survey methods

- Eligible if age>15 years, English comprehension, completed testing, and consented to be contacted for research purposes
- Simultaneous recruitment (July 2015-April 2016)
  - GCO & provincial STI clinic clients: email invitation
  - Bute street and HIM clinic clients: waiting room brochures
- Online survey
  - Baseline:  $\sim$ 2 weeks after receipt of test result
  - 3-month follow-up survey
- Honorarium \$20 each survey

## **Comparison of socio-demographics & barriers**

Client Characteristic (sig at p<0.01)	GCO n=87	Clinic n=348
Median age	35 yrs	30 yrs
Gay, bisexual or other man who has sex with men	40%	23%
Reason for last test – Routine test	58%	42%
Reason for last test – symptoms, or contact to STI	11%	29%
Important to access online health resources	76%	57%
Delayed testing in past year due to clinic distance	24%	9%
Last time tested in a clinic, agreed that: Found clinic hours to be convenient Making an appointment was easy Had to wait a long time to see a health care provider	59% 49% 48%	77% 65% 20%
Uncomfortable discussing sexual history with HCP (any)	16%	5%
Fear of being judged by HCP when providing sexual history	29%	15%
Embarrassing to test for an STI or HIV	18%	6%

Preliminary findings only and may change. All findings significant at p<0.01.

# Comparison of post-test HIV knowledge

- Knowledge measured through 6-item true/false test:
  - Based on key concepts related to HIV testing as per provincial guidelines

	Mean HIV test scores - 0 (low) to 6		
	GCO (n=73)	Clinic (n=331)	<i>P</i> value
Overall, unadjusted	4.5	4.1	0.01
<b>Overall, adjusted</b> *age, education, immigration history, language, sexual orientation and testing history	4.4	4.2	0.15
Among first-time testers, unadjusted	3.7	3.6	0.75

## Comparison of user experience, trust, e-Loyalty

Client Characteristic*	GCO n=87	Clinic n=424
Satisfaction with testing experience (very satisfied)	61%	80%
Satisfaction with experience of receiving test results (completely satisfied)	72%	56%
I would use GCO/clinic again (strongly agree)	83%	73%
I would recommend GCO/clinic to others (strongly agree)	82%	75%
It was convenient for me to get tested (strongly agree)	64%	41%
l received enough information to help me decide what tests l need (strongly agree)	63%	67%
Confidence that personal information and results from your last test will be kept confidential (very confident)	45%	58%

Preliminary findings only and may change; test for significance not conducted.

\* In general, if aggregated across top two categories of the five point Likert scales saw little difference between GCO and Clinic clients.

# Interviews with GCO users

Thanks to: Kim Thomson, Cathy Chabot

#### **Objectives:**

• To assess clients' experiences of using GCO including acceptability, motivators for testing, and barriers to use.

**Eligibility:** if English language, completed testing, consented to be contacted for research purposes and either:

- Youth: Age15-29 years
- GBMSM (from profile): Age  $\geq$  30 years

#### **Recruitment:**

- Email invitation
- To date 12 Youth (23-29 yrs), 19 GBMSM (30-71)

Both groups were motivated to use GCO because of:

- Convenience
- Not having to wait to get tested at a clinic
- Increased privacy and anonymity
- Avoiding judgement from healthcare providers

#### YOUTH perceived GCO as modern, "the future"

GBMSM perceived GCO as providing increased control over tests ordered, decreasing anxiety due to receiving results faster

For rural men, way to test discreetly without coming out to HCP





# **Survey of GBMSM**

Thanks to Joshun Dulai, conducted in August 2016

#### • Objectives:

- To measure reach (awareness, use) and acceptability (intention to use) of GCO among GBMSM
- To measure perceptions of GCO (benefits, drawbacks)
- To measure dissemination of GCO awareness in social networks

#### • Methods:

- Three Recruitment strategies: i) Pride festivals, lower Mainland; ii) HIM
  Clinics; iii) Online (social media, websites, apps)
- Eligibility:
  - Self-identification as gay, bisexual or MSM (including cis and trans men)
  - Age > 15
  - Able to complete a survey in English
  - Resides in BC

#### Survey results N=1272



## **Test episodes completed**



1 in 20 testers diagnosed with an STI Well accepted, highly valued for convenience, privacy Users have behaviours that may risk infection 10-20% of people are testing for the first time Users have testing barriers (physical/clinic, HCP/stigma) Vancouver vs regional differences No detectable effect of lack of counseling on knowledge Awareness diffusing in networks



# **Diffusion of Innovations**



Why do we see attrition at each step of GCO? What impact is GCO having on testing patterns? Is GCO leading to earlier diagnosis and averted infections?

Is GCO cost-effective?

What do providers think about GCO?

What is the impact on STI testing services?

Is GCO improving or worsening health inequities?

#### **Implementation Science**

Examine what works, for whom, under what contextual circumstances, and whether interventions are scalable in equitable ways

Edwards N, Barker PM. JAIDS 2014; 67 Suppl 2:S157-162

#### **Implementation Science**



Chaudoir, 2013 Proctor et al, 2011







## Thanks



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www.lovebytesresearch.ca